

## **REMARKS**

The Office Action mailed October 21, 2009 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

### **Canceled Claims 1-5**

Claims 1-5 have been canceled without prejudice or disclaimer of the subject matter contained therein.

### **Amendment to Claims 6 and 20-22**

Claims 6 and 20-22 have been amended for improved clarity and grammatical accuracy. The amendment does not raise any issues beyond those already considered by the Examiner.

No amendment made is related to the statutory requirements of patentability unless expressly stated herein. No amendment is made for the purpose of narrowing the scope of any claim, unless Applicant argues herein that such amendment is made to distinguish over a particular identified reference or combination of references. Any remarks made herein with respect to a given claim or amendment is intended only in the context of that specific claim or amendment, and should not be applied to other claims, amendments or aspects of Applicant's invention.

### **Rejection(s) Under 35 U.S.C. §102**

Claims 1-3, 6-11, 14, 17, and 20-21 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Dyer (U.S. Patent No. 6,160,028). Of these, claims 1-3 have been cancelled without prejudice.

According to the Examiner, Dyer discloses "combining the oil and water phases . . . and subjecting the combined phases to shear agitation in order to disperse the water droplets to such an extent that the resulting polymeric foam will have the requisite structural characteristics." (Office Action para 4.) However, Dyer discloses that shear agitation is "applied to the extent and for a time period necessary to form a stable emulsion" (col. 20, ll. 1-2). Dyer further teaches that this agitation is for the purpose of ensuring that "the water phase droplets are dispersed to the extent that the resulting polymeric foam will have the requisite structural characteristics" (col.

20, ll. 5-7). Thus, Dyer teaches that the purpose of shearing is to disperse the water phase droplets in order to form an emulsion. Thus, the dispersion step of Dyer corresponds to the mixing step “a” of independent claim 6. Amended claim 6 requires a separate and additional step “b” of “reducing the diameter of water bubbles contained in the emulsion formed during step “a”, something which Dyer does not disclose or teach. Dyer discloses only a single step of dispersion, not followed by a step of reducing the diameter. The dispersion step of Dyer is not the same as the step of “reducing the diameter” required by claim 6.

Therefore, one of skill in the art would not understand or deduce from Dyer that it is possible to obtain polyHIPE foams with a mean diameter of 10  $\mu\text{m}$  or less by subjecting the emulsion, once obtained by mixing the two phases, to a shear step so as to reduce the diameter of the water bubbles present in the emulsion. The relevance of Dyer to reducing the size of water bubbles through a shearing step could only be appreciated in retrospect, after having access to the teachings in the present Application.

In addition, Dyer does not disclose or teach the production of an “exclusively hydrocarbon copolymer” as required in amended independent claim 6, so as to obtain a foam with a high degree of purity.

It will be appreciated that, according to the M.P.E.P., a claim is anticipated under 35 U.S.C. §102 only if each and every claim element is found, either expressly or inherently described, in a single prior art reference.<sup>1</sup> The aforementioned reasons clearly indicate the contrary. Independent claim 6 is neither anticipated by Dyer, nor obvious in view of Dyer. Likewise, dependent claims 7-11, 14, 17, and 20-21 are not anticipated or obvious because they inherit the limitations of independent claim 6. Thus, Applicants respectfully request the withdrawal of this 35 U.S.C. §102 rejection.

### **Rejection(s) Under 35 U.S.C. §103(a)**

Claims 4-5, 13, 15, and 22 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Dyer (U.S. Patent No. 6,160,028). Of these, claims 4-5 have been cancelled without prejudice. Claims 13, 15, and 22 depend on claim 6 and therefore inherit all of its limitations. Therefore, claims 13, 15, and 22 are not obvious because independent claim 6 is not

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<sup>1</sup> Manual of Patent Examining Procedure (MPEP) § 2131. See also *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

obvious, for the reasons discussed above. Thus, the rejection as to dependent claims 13, 15, and 22 should be withdrawn.

Claim 12 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Dyer and further in view of Shinozaki et al. (U.S. Patent No. 5,616,413). Claim 12 depends on claim 6 and therefore inherits all of its limitations. Therefore, claim 12 is not obvious because independent claim 6 is not obvious, for the reasons discussed above. Shinozaki does not remedy the deficiencies of Dyer discussed above with respect to parent claim 6. Thus, the rejection as to dependent claim 12 should be withdrawn.

Claims 17-19 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Dyer and further in view of Clear et al. (U.S. Patent No. 6,750,261). Claims 17-19 depend on claim 6 and therefore inherit all of its limitations. Therefore, claims 17-19 are not obvious because independent claim 6 is not obvious, for the reasons discussed above. Thus, the rejection as to dependent claims 17-19 should be withdrawn.

In addition, the disclosure of Clear does not remedy the deficiency of Dyer as a prior art reference with respect to claims 17-19. The Examiner notes that Dyer does not teach “that the emulsion is subjected to shear by injecting the emulsion into a container by means of a syringe connected to a pulser capable of delivering a pressure above atmospheric pressure, that the container into which the emulsion is injected is a mold having the shape and dimensions of the foam to be manufactured, or that the syringe is provided with a needle having an internal diameter of 150 microns to 1 mm.” (Office Action, para. 17.) The Examiner argues that Clear provides these teachings. However, Clear, like Dyer, does not disclose the reduction of bubble diameter. In Clear, the emulsion is injected into polypropylene wells for the purpose of shaping, with no disclosure or teaching relating to the reduction of bubble diameter. Thus, one of skill in the art would not be motivated by Clear to modify the teachings of Dyer to practice the claimed inventions. Thus, for this further reason, the rejection as to dependent claims 17-19 should be withdrawn.

**Conclusion**

In view of the preceding discussion, Applicants respectfully urge that the claims of the present application define patentable subject matter and should be passed to allowance.

If the Examiner believes that a telephone call would help advance prosecution of the present invention, the Examiner is kindly invited to call the undersigned attorney at the number below.

Please charge any additional required fees, including those necessary to obtain extensions of time to render timely the filing of the instant Amendment and/or Reply to Office Action, or credit any overpayment not otherwise credited, to our deposit account no. 50-3557.

Respectfully submitted,  
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